Docket No.: <u>1232-4349US1</u>

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Applicant(s): Keiic

Keiici Ikeda, et al.

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IMAGE SENSING APPARATUS, IMAGE PROCESSING

APPARATUS AND IMAGE SENSING SYSTEM

COMMISSIONER FOR PATENTS

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PRELIMINARY AMENDMENT

**OFFICE OF PETITIONS** 

Sir:

Please enter the following Preliminary Amendment in the above-referenced application prior to examining the application.

#### IN THE CLAIMS

Please cancel claims 33-35 without prejudice.

Please add claims 36-41.

Kindly amend claims 1, 3-9 11-13, 15-16, 18-28 and 30-32 to read as follows:

1. (Amended) An image sensing apparatus connected to an external image processing apparatus comprising:

image sensing circuit for sensing an abject and outputting an image signal; communication circuit for transmitting the image signal and identification information on said image sensing circuit; and

control circuit for controlling said image sensing circuit and a communication mode of said communication circuit in accordance with driving signals, transmitted from the 25764 v1

image processing apparatus,

wherein said communication circuit mutes the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.

- 3. (Amended) The image sensing apparatus according to claim 1, wherein said control circuit controls said communication circuit set to a predetermined communication mode in an initial state, and said communication circuit transmits the identification information under the initial state, then said control circuit changes the predetermined communication mode set in said communication circuit if the predetermined mode does not conform to said image sensing circuit.
- 4. (Amended) The image sensing apparatus according to claim 1, said communication circuit comprises muting circuit for muting a signal level of the image signal obtained by said image sensing circuit and outputting the muted signals to said communication circuit.
- 5. (Amended) The image sensing apparatus according to claim 1, wherein said control circuit controls said communication circuit set to a communication mode corresponding to a type of said image sensing circuit in an initial state, and said communication circuit transmits a signal responding to a request signal transmitted from the image processing apparatus as the identification information.

- 6. (Amended) The image sensing apparatus according to claim 11 wherein said communication circuit communicates in a vertical interval data signal method.
- 7. (Amended) The image sensing apparatus according to claim 1, further comprising driving signals that include a synchronizing signal and a clock signal.
- 8. (Amended) The image sensing apparatus according to claim 1, wherein at least an amount of information is changed in accordance with the communication mode.
- 9. (Amended) An image processing apparatus which processes an image signal transmitted from an image sensing apparatus, comprising:

communication circuit for receiving the image signal and identification information and communicating with the image sensing apparatus;

driving signals generation circuit capable of generating plural kinds of driving signals for driving the image sensing apparatus;

signal processing circuit for processing the image signal in a signal processing method corresponding to a communication mode; and

control circuit for controlling said image sensing apparatus to mute the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.

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The image processing apparatus according to claim 9, wherein said control circuit controls said communication circuit set to a predetermined communication mode in an initial state, changes the communication mode in accordance with the identification information received under the initial state if the identification information indicates a communication mode different from the predetermined communication mode, and controls said driving signals generation circuit to generate and send a specific type of the driving signals selected in accordance with the identification information.

- 12. The image processing apparatus according to claim 9, wherein said control circuit sequentially changes communication modes of said communication circuit in an initial state, controls said driving signals generation circuit to sequentially generate and output plural kinds of driving signals corresponding to the communication modes as the communication mode is changed, and transmits a request signal each time the communication mode is changed, and when the identification information corresponding to the request signal is transmitted, said control circuit controls to fix the communication mode and the driving signals set when the identification information is received.
- 13. The image processing apparatus according to claim 9, wherein said communication circuit communicates in a vertical interval data signal method.
- 15. (Amended) The image processing apparatus according to claim 9, wherein at least an amount of information is changed in accordance with the communication mode.

16. (Amended) An image sensing system having an image sensing apparatus and an image processing apparatus, and said image sensing apparatus comprising:

image sensing circuit for sensing an object and outputting an image signal;

first communication circuit for transmitting the image signal and identification
information on said image sensing circuit; and

first control circuit for controlling said image sensing circuit and said first communication circuit and controlling said image sensing circuit and said first communication circuit in accordance with control signals, transmitted from said image processing apparatus, and said image processing apparatus comprising:

second communication circuit for receiving the image signal and the identification information and communicating with said image sensing apparatus;

driving signals generation circuit capable of generating plural kinds of driving signals for driving said image sensing apparatus;

signal processing circuit for processing the image signal in a signal processing method corresponding to the communication mode; and

second control circuit for controlling said image sensing apparatus to mute the image signal while predetermined communication between said image sensing apparatus and said image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal,

wherein said first communication circuit mutes the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.

- 18. (Amended) The image sensing system according to claim 16, wherein said first and second control circuit control said first and second communication circuit to be set to a predetermined communication mode in an initial state, and said first communication circuit transmits the identification information, then said first control circuit changes the predetermined communication mode set in said first communication circuit if the predetermined mode does not conform to said image sensing circuit, and said second control circuit changes the communication mode set in said second communication circuit in accordance with the identification information if the identification information indicates a communication mode different from the predetermined communication mode, and controls said driving signals generation circuit to generate and send a specific type of the driving signals selected in accordance with the identification information.
- 19. (Amended) The image sensing system according to claim 16, said first communication circuit comprises muting circuit for muting a signal level of the image signal obtained by said image sensing circuit and outputting the muted signals to said first communication circuit.
- 20. (Amended) The image sensing system according to claim 16, wherein said first control circuit controls said first communication circuit set to a communication mode corresponding to a type of said image sensing circuit in an initial state, said second control [means] circuit sequentially changes communication modes of said second communication [means] circuit in the initial state, controls said driving signals generation [means] circuit to sequentially generate and output plural kinds of driving signals corresponding to the

communication modes as the communication mode is changed, and transmits a request signal each time the communication mode is changed, and [when] wherein said first communication circuit transmits a signal responding to the request signal transmitted from said image processing apparatus, said second control circuit then fixing the communication mode and the driving signals set when the identification information is received.

- 21. The image sensing system according to claim 16, wherein said first and second communication circuit communicate in a vertical interval data signal method.
- 22. (Amended) The image sensing system according to claim 16, wherein the driving signals include a synchronizing signal and a clock signal.
- 23. (Amended) The image sensing system according to claim 16, wherein said first communication circuit changes at least an amount of information in accordance with the communication mode.
- 24. (Amended) The image sensing system according to claim 16, wherein said second communication circuit changes at least an amount of information in accordance with the communication mode.

25. (Amended) A method for controlling an image sensing apparatus connected to an external image processing apparatus, comprising the steps of:

setting a communication mode;

transmitting an image signal and identification information on image sensing circuit;

muting the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal if the set communication mode does not conform to said image sensing apparatus;

changing the set communication mode to a communication mode conforming to the image sensing circuit while the image signal is muted; and

performing image sensing in accordance with control signals, transmitted from the image processing apparatus.

26. (Amended) A method of controlling an image processing apparatus which processes an image signal transmitted from an image sensing apparatus, comprising the steps of:

setting a communication mode;

receiving an image signal and identification information in the set communication mode;

generating a driving signals corresponding to the set communication mode for driving the image sensing apparatus;

muting the image signal from said image sensing apparatus while predetermined communication between said image sensing apparatus and said image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal if the set communication mode does not conform to said image sensing apparatus;

changing the set communication mode to a communication mode conforming to said image sensing apparatus while the image signal is muted;

changing the driving signals to control signals corresponding to the communication mode if the communication mode is changed; and

processing the image signal in a signal processing method corresponding to the communication mode in which the image signal is received.

27. (Amended) A method for controlling an image sensing system having an image sensing apparatus and an image processing apparatus, comprising the steps of:

setting a communication mode;

generating a driving signals corresponding to the set communication mode for driving the image sensing apparatus;

transmitting an image signal and identification information on image sensing circuit from the image sensing apparatus to the image processing apparatus;

receiving the image signal and the identification information sent from the image sensing apparatus in the image processing apparatus in the set communication mode;

muting the image signal from said image sensing apparatus while predetermined communication between said image sensing apparatus and said image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal if the set

communication mode does not conform to said image sensing apparatus;

changing the set communication mode to a communication mode conforming to said image sensing apparatus while the image signal is muted;

changing the driving signals to control signals corresponding to the communication mode if the communication mode is changed;

performing image sensing in the image sensing apparatus in accordance with the control signals, transmitted from the image processing apparatus; and

processing the image signal in the image processing apparatus in a signal processing method corresponding to the communication mode.

28. An image processing apparatus comprising: (Amended) connector circuit capable of connecting to one of a plurality of image sensing apparatuses;

memory for storing plural kinds of characteristic data corresponding to the respective image sensing apparatuses;

signal processing circuit capable of performing a plurality of different signal processing operations in correspondence with the characteristic data, stored in said memory, corresponding to the respective image sensing apparatuses;

circuit for selectively connecting one of the plurality of image sensing apparatuses to said signal processing circuit;

communication circuit for communicating with said image sensing apparatus in synchronism with a predetermined synchronous camera control signal and for obtaining identification information of said image sensing apparatus connected to the connector circuit; and control circuit for controlling said signal processing circuit to perform one of signal processing operations corresponding to the stored characteristic data of an image sensing apparatus connected to the connector circuit,

wherein said communication circuit mutes the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.

- 30. The image processing apparatus according to claim 28, wherein the image processing apparatus is connected to an external information processing apparatus, and said control circuit controls said signal processing circuit to perform signal processing corresponding to an attribute designated by the information processing apparatus.
- 31. The image processing apparatus according to claim 28 further comprising memory circuit for storing attributes of image sensing apparatuses connected to said connector circuit.
- 32. The image processing apparatus according to claim 28, wherein the attribute at least includes a number of pixels or a video rate of said image sensing circuit.
- 36. (New) An image sensing apparatus comprising:

  image sensing circuit for producing an image signal; and

  communication circuit for communicating with an external processing apparatus,

  wherein said communication circuit includes a first mode for transmitting said

  image signal in synchronism with a predetermined synchronous signal and a second mode for

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muting said image signal while communicating with said external processing apparatus in synchronism with said predetermined synchronous signal.

- 37. (New) The image sensing apparatus according to claim 36, wherein said communication circuit communicates with said external processing apparatus during a periodical image blanking period in said first mode.
- 38. (New) The image sensing apparatus according to claim 36, wherein said communication circuit communicates with said external processing apparatus during a period other than a periodical image blanking period in said second mode.
- image sensing circuit for producing an image signal; and communication circuit for communicating with an external processing apparatus and for muting said image signal while communicating with said external processing apparatus in synchronism with a predetermined synchronous camera control signal.

(New) An image sensing apparatus comprising:

40. (New) The image sensing apparatus according to claim 39, wherein said communication circuit communicates with said external processing apparatus during a periodical image blanking period.

41. (New) The image sensing apparatus according to claim 39, wherein said communication circuit communicates with said external processing apparatus during a period other than a periodical image blanking period.

### **REMARKS**

Independent claims 1, 9, 16, 25-28, 36 and 39 discloses an image sensing apparatus, system and method wherein the communication circuit mutes an image signal while a predetermined communication is carried out. The claim amendments are supported by the Specification (e.g., page 25, lines 22-24). As disclosed by these claims, during the initial communication before an external device receives information on characteristics of a camera, an image signal is muted by the image signal mute unit 108 in the camera because the image received by the external device will be in disorder. In addition, by muting an image signal, it is possible to communicate the identification information during a period other than the blanking period.

According to U.S. Pat. No. 5,486,853 to Baxter, data other than image signal is transmitted only during the vertical blanking period, and it is not possible to transmit the data during a period other than the vertical blanking period, because there is no muting circuit and the image signal exists in the period other than the vertical blanking period. Accordingly, we believe that independents claims 1, 9, 16, 25-28, 36 and 39 are patentable over Baxter. Moreover, because claims 2-8, 10-15, 17-24, 29-32, 37-38 and 40-41 depend from claims 1, 9, 16, 25-28, 36 and 39, these claims are likewise patentable over the cited references.

# **CONCLUSION**

Accordingly, Applicants respectfully submit that this application is in condition for allowance for which action is earnestly solicited.

### **AUTHORIZATION**

The Assistant Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment to Deposit Account No. 13-4500, Order No. 1232-4349US1. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1232-4349US1. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: July 2, 2001

Brian W. Brown

Registration No. 47,265

Mailing Address:

MORGAN & FINNEGAN, L.L.P. 345 Park Avenue New York, New York 10154 (212) 758-4800

(212) 751-6849 (Fax)

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#### APPENDIX - CLAIMS SHOWING AMENDMENT

1. (Amended) An image sensing apparatus connected to an external image processing apparatus comprising:

image sensing [means] <u>circuit</u> for sensing an abject and outputting an image signal; communication [means] <u>circuit</u> for transmitting the image signal and identification information on said image sensing [means] <u>circuit</u> [multiplexed in a blanking period of the image signal to the image processing apparatus as well as communicating with the image processing apparatus]; and

control [means] circuit for controlling said image sensing [means] circuit and a communication mode of said communication [means] circuit in accordance with driving signals, transmitted from the image processing apparatus, [which corresponds to the communication mode]

wherein said communication [means] <u>circuit</u> [multiplexes] <u>mutes</u> the image signal [and the identification information in accordance with the] <u>while predetermined</u> communication [mode controlled by said control means] <u>between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.</u>

3. (Amended) The image sensing apparatus according to claim 1, wherein said control [means] circuit controls said communication [means] circuit set to a predetermined communication mode in an initial state, and said communication [means] circuit transmits the identification information [multiplexed in the blanking period of the image signal] under the initial state, then said control [means] circuit changes the predetermined communication mode set in

said communication [means] <u>circuit</u> if the predetermined mode does not conform to said image sensing [means] <u>circuit</u>.

- 4. (Amended) The image sensing apparatus according to claim 1 [further comprising], said communication circuit comprises muting [means] circuit for muting a signal level of the image signal obtained by said image sensing [means] circuit and outputting the muted signals to said communication [means] circuit.
- 5. (Amended) The image sensing apparatus according to claim 1, wherein said control [means] circuit controls said communication [means] circuit set to a communication mode corresponding to a type of said image sensing [means] circuit in an initial state, and said communication [means] circuit transmits a signal responding to a request signal transmitted from the image processing apparatus as the identification information [multiplexed in the blanking period of the image signal under the initial state, then said control means controls said image sensing means in accordance with a driving signals corresponding to the communication mode].
- 6. (Amended) The image sensing apparatus according to claim 11 wherein said communication [means] circuit communicates in a vertical interval data signal method.
- 7. (Amended) The image sensing apparatus according to claim 1, [wherein the] <u>further comprising</u> driving signals [includes] <u>that include</u> a synchronizing signal and a clock signal.

- 8. (Amended) The image sensing apparatus according to claim 1, wherein at least [a position or] an amount of information [to be multiplexed in the image signal] is changed in accordance with the communication mode.
- 9. (Amended) An image processing apparatus which processes an image signal transmitted from an image sensing apparatus, comprising:

communication [means] <u>circuit</u> for receiving the image signal and identification information [multiplexed in a blanking period of the image signal from the image sensing apparatus] and communicating with the image sensing apparatus;

driving signals generation [means] <u>circuit</u> capable of generating plural kinds of driving signals for driving the image sensing apparatus;

signal processing [means] <u>circuit</u> for processing the image signal in a signal processing method corresponding to a communication mode; and

control [means] circuit for controlling [the communication mode of said communication means and said driving signals generation means in accordance with the identification information] said image sensing apparatus to mute the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.

11. The image processing apparatus according to claim 9, wherein said control [means] circuit controls said communication [means] circuit set to a predetermined communication mode in an initial state, changes the communication mode in accordance with the identification information received under the initial state if the identification information indicates

a communication mode different from the predetermined communication mode, and controls said driving signals generation [means] <u>circuit</u> to generate and send a specific type of the driving signals selected in accordance with the identification information.

- The image processing apparatus according to claim 9, wherein said control [means] circuit sequentially changes communication modes of said communication [means] circuit in an initial state, controls said driving signals generation [means] circuit to sequentially generate and output plural kinds of driving signals corresponding to the communication modes as the communication mode is changed, and transmits a request signal each time the communication mode is changed, and when the identification information corresponding to the request signal is transmitted, said control [means] circuit controls to fix the communication mode and the driving signals set when the identification information is received.
- 13. The image processing apparatus according to claim 9, wherein said communication [means] <u>circuit</u> communicates in a vertical interval data signal method.
- 15. (Amended) The image processing apparatus according to claim 9, wherein at least [a position or] an amount of information [to be multiplexed in the driving signals] is changed in accordance with the communication mode.
- 16. (Amended) An image sensing system having an image sensing apparatus and an image processing apparatus, and said image sensing apparatus comprising:

image sensing [means] circuit for sensing an object and outputting an image signal;

first communication [means] <u>circuit</u> for transmitting the image signal and identification information on said image sensing [means] <u>circuit</u> [multiplexed in a blanking period of the image signal to said image processing apparatus as well as communicating with said image processing apparatus]; and

first control [means] circuit for controlling said image sensing [means] circuit and [a communication mode of] said first communication [means] circuit and controlling said image sensing [means] circuit and said first communication [means] circuit in accordance with [a driving] control signals, transmitted from said image processing apparatus, [which corresponds to the communication mode,] and said image processing apparatus comprising:

second communication [means] <u>circuit</u> for receiving the image signal and the identification information [multiplexed in the blanking period of the image signal from said image sensing apparatus] and communicating with said image sensing apparatus;

driving signals generation [means] <u>circuit</u> capable of generating plural kinds of driving signals for driving said image sensing apparatus;

signal processing [means] <u>circuit</u> for processing the image signal in a signal processing method corresponding to the communication mode; and

second control [means] circuit for controlling [the communication mode of said second communication means and said driving signal generation means in accordance with the identification information,] said image sensing apparatus to mute the image signal while predetermined communication between said image sensing apparatus and said image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal,

wherein said first communication [means] circuit [multiplexes the image signal and the

identification information in accordance with the communication mode controlled by said first control means] mutes the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.

- first and second control [means] circuit control said first and second communication [means] circuit to be set to a predetermined communication mode in an initial state, and said first communication [means] circuit transmits the identification information [multiplexed in the blanking period of the image signal], then said first control [means] circuit changes the predetermined communication mode set in said first communication [means] circuit if the predetermined mode does not conform to said image sensing [means] circuit, and said second control [means] circuit changes the communication mode set in said second communication [means] circuit in accordance with the identification information if the identification information mode, and controls said driving signals generation [means] circuit to generate and send a specific type of the driving signals selected in accordance with the identification information.
- 19. (Amended) The image sensing system according to claim 16 [further comprising], said first communication circuit comprises muting [means] circuit for muting a signal level of the image signal obtained by said image sensing [means] circuit and outputting the muted signals to said first communication [means] circuit.

first control [means] circuit controls said first communication [means] circuit set to a communication mode corresponding to a type of said image sensing [means] circuit in an initial state, said second control [means] circuit sequentially changes communication modes of said second communication [means] circuit in the initial state, controls said driving signals generation [means] circuit to sequentially generate and output plural kinds of driving signals corresponding to the communication modes as the communication mode is changed, and transmits a request signal each time the communication mode is changed, and [when] wherein said first communication [means] circuit transmits a signal responding to the request signal transmitted from said image processing apparatus [as the identification information multiplexed in the blanking period of the image signal when the request signal is received], [then] said second control [means] circuit [controls to fix] then fixing the communication mode and the driving signals set when the identification information is received.

- 21. The image sensing system according to claim 16, wherein said first and second communication [means] <u>circuit</u> communicate in a vertical interval data signal method.
- 22. (Amended) The image sensing system according to claim 16, wherein the driving signals [includes] include a synchronizing signal and a clock signal.

- 23. (Amended) The image sensing system according to claim 16, wherein said first communication [means] <u>circuit</u> changes at least [a position or] an amount of information [to be multiplexed in the image signal] in accordance with the communication mode.
- 24. (Amended) The image sensing system according to claim 16, wherein said second communication [means] <u>circuit</u> changes at least [a position or] an amount of information [to be multiplexed in the image signal] in accordance with the communication mode.
- 25. (Amended) A method for controlling an image sensing apparatus connected to an external image processing apparatus, comprising the steps of:

setting a communication mode;

transmitting an image signal and identification information on image sensing [means] <u>circuit</u> [multiplexed in a blanking period of the image signal to the image processing apparatus in the set communication mode];

muting the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal if the set communication mode does not conform to said image sensing apparatus;

changing the set communication mode [if the predetermined mode does not conform] to a communication mode conforming to the image sensing [means] circuit while the image signal is muted; and

performing image sensing in accordance with [a driving] <u>control</u> signals, transmitted from the image processing apparatus [, which corresponds to the communication

mode].

26. (Amended) A method of controlling an image processing apparatus which processes an image signal transmitted from an image sensing apparatus, comprising the steps of:

setting a communication mode;

receiving an image signal and identification information in the set communication mode;

generating a driving signals corresponding to the set communication mode for driving the image sensing apparatus;

muting the image signal from said image sensing apparatus while predetermined communication between said image sensing apparatus and said image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal if the set communication mode does not conform to said image sensing apparatus;

changing the set communication mode [if necessary] to a communication mode conforming to said image sensing apparatus while the image signal is muted;

changing the driving signals to [a driving] <u>control</u> signals corresponding to the communication mode if the communication mode is changed; and

processing the image signal in a signal processing method corresponding to the communication mode in which the image signal is received.

A method for controlling an image sensing system having an 27. (Amended) image sensing apparatus and an image processing apparatus, comprising the steps of: setting a communication mode;

generating a driving signals corresponding to the set communication mode for driving the image sensing apparatus;

transmitting an image signal and identification information on image sensing [means] circuit [multiplexed in a blanking period of the image signal to the image processing apparatus in the set communication mode] from the image sensing apparatus to the image processing apparatus;

receiving the image signal and the identification information sent from the image sensing apparatus in the image processing apparatus in the set communication mode;

muting the image signal from said image sensing apparatus while predetermined communication between said image sensing apparatus and said image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal if the set communication mode does not conform to said image sensing apparatus;

changing the set communication [if necessary] mode to a communication mode conforming to said image sensing apparatus while the image signal is muted;

changing the driving signals to [a driving] control signals corresponding to the communication mode if the communication mode is changed;

performing image sensing in the image sensing apparatus in accordance with the [driving] control signals, transmitted from the image processing apparatus [which corresponds to the communication mode]; and

processing the image signal in the image processing apparatus in a signal processing method corresponding to the communication mode.

28. (Amended) An image processing apparatus comprising:

connector [means] circuit capable of connecting to one of a plurality of image sensing apparatuses;

memory for storing plural kinds of characteristic data corresponding to the respective image sensing apparatuses;

signal processing [means] <u>circuit</u> capable of performing a plurality of different signal processing operations in correspondence with the [plurality of] <u>characteristic data, stored in said memory, corresponding to the respective</u> image sensing apparatuses;

[means] <u>circuit</u> for selectively connecting one of the plurality of image sensing apparatuses to said signal processing [means] <u>circuit</u>; [and]

communication circuit for communicating with said image sensing apparatus in synchronism with a predetermined synchronous camera control signal and for obtaining identification information of said image sensing apparatus connected to the connector circuit; and

control [means] <u>circuit</u> for controlling said signal processing [means] <u>circuit</u> to perform one of signal processing operations corresponding to [an attribute] <u>the stored</u> <u>characteristic data</u> of an image sensing apparatus connected to the connector [means] <u>circuit</u>,

wherein said communication circuit mutes the image signal while predetermined communication between said image sensing apparatus and said external image processing apparatus is carried out in synchronism with a predetermined synchronous camera control signal.

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30. The image processing apparatus according to claim 28, wherein the image processing apparatus is connected to an external information processing apparatus, and said control [means] circuit controls said signal processing [means] circuit to perform signal processing corresponding to an attribute designated by the information processing apparatus.

- 31. The image processing apparatus according to claim 28 further comprising memory [means] <u>circuit</u> for storing attributes of image sensing apparatuses connected to said connector [means] <u>circuit</u>.
- 32. The image processing apparatus according to claim 28, wherein the attribute at least includes a number of pixels or a video rate of said image sensing [means] circuit.